

her condition became so severe that it seemed as if she was about to die, he became desperate enough to try some serum experiments for himself. Dr. Rogers made some emulsions of recently excised goitrous thyroid glands, and injected them into a rabbit. From the animal he obtained a serum, one injection of which practically annihilated all the symptoms of goitre in his wife.

The condition of the patient whom he so treated was so alarming when these injections were made that he as yet has hesitated about putting this serum in the hands of the profession, and he refuses to use it except in extreme cases, where even a surgeon prefers not to undertake surgical intervention.

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## PRENATAL INFLUENCES

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"PRENATAL Influence" is a subject in which I have always been interested, and about which I have found very little written. I present it to you as I find it treated in our latest medical authorities.

Destined as woman has been from the foundation of the world to pass through this period of reproduction and parturition in order to propagate the race, child-birth should be regarded as an absolutely normal process.

It is a function for which woman has been especially designed. Her pelvic conformation, the provision allotted for the maintenance of her offspring after birth, her characteristic maternal instincts, all indicate the noble purpose for which she was created.

It has been found that in the human being gestation covers a period of 280 days, ten lunar months, or nine calendar months. Proper attention to hygienic rules should be observed by every pregnant woman.

1st. The diet should be nutritious, plain, and easily digestible.

2d. The clothing should be loose, with corsets and garters discarded.

3d. Gentle daily outdoor exercise, especially during the first six months, while the physical part of the child is rapidly developing; later on, when the mental faculties are rapidly developing, include mental recreation.

4th. Bathe daily in water neither too hot nor too cold, the bowels to move at least once daily.

Now, these precautions, as we see, are only following out ordinary

rules of hygiene. In other words, use common sense. If you want a healthy child, be a healthy mother; but Doryland says, in addition to these, avoid unpleasant and painful scenes or impressions, that the possibility of the production of some of the so-called maternal impressions may be prevented.

Maternal impressions or peculiarities in the mental or physical formation of the offspring, depending upon some mental shock or impression made upon the mother during pregnancy, are interesting phenomena that are not infrequently met with.

They are probably most common in the children of women whose nervous organisms are highly developed, but the exact nature of their production has not as yet been clearly demonstrated.

The phenomena as noted in the foetus are generally referred by the family to some unpleasant occurrence, such as an encounter by the pregnant woman with some gruesome person or object, the hearing of some startling news, or the seeing of some tragedy, but how far the fetal condition is due to the maternal impression received at the stated time is a mooted question.

It is undoubtedly true that curious coincidents of the kind have been noted by men whose standing is such as to add much weight to their statements. Clinically, the effects of such *so-called* impressions upon the foetus may be manifested in two distinct ways. In the one case there results a lack of the physical development and in the other a lack of the mental, although these two are frequently combined in one individual.

During the siege of Paris it is well authenticated that many pregnant women, terrified by harrowing scenes and experiences of that time, ultimately gave birth to feeble-minded children.

At best, the subject, though intensely interesting, is still largely within the realm of speculation, and nothing beyond the facts as just presented can be stated with any degree of authority.

The literature of this subject is deplorably poor, and it would be well were every case of supposed maternal impression accurately reported, the statement to include not only the exact anatomic and physiologic facts, but also whatever family history of heredity, maternal or paternal, might exist.

Gould and Pyle, in their "Anomalies and Curiosities of Medicine," say: "A curious fact associated with pregnancy is the *apparent influence* of the emotions of the mother on the child in the uterus."

There is a natural desire to explain any abnormality or anomaly of the child as due to some incident during the period of the mother's pregnancy, and the truth is often distorted and the imagination heavily

drawn upon to furnish the satisfactory explanation. In some countries the exhibition of monstrosities is forbidden, because of the supposed danger of maternal impressions. For this reason the celebrated "Siamese Twins" were forbidden to exhibit themselves for quite a period in France.

We will cite only a few of the most interesting cases from medical literature:

(a) Hippocrates saved the honor of a princess accused of adultery with a negro, because she bore a black child, by citing it as a case of maternal impressions, the husband of the princess having placed in her room a painting of a negro, to the view of which she was subjected during the whole of her pregnancy.

(b) Helidorus says that Persina, Queen of Ethiopia, being impregnated by Hydustes, also an Ethiopian, bore a daughter with a white skin, and the anomaly was ascribed to the admiration that a picture of Andromeda excited in Persina during the whole of her pregnancy.

(c) Kerr reports a case of a woman in her seventh month whose four-year-old daughter fell on a cooking stove, shocking the mother, who suspected fatal burns. The woman was delivered two months later of an infant blistered about the mouth and extremities in a similar manner as her sister. The infant died on the third day, and another child was born fourteen months later with the same blisters. In a subsequent confinement a healthy, unmarked infant was born.

(d) A case somewhat similar was reported to me by one of our local physicians. Mrs. A. was delivered of a child afflicted with spina bifida. Fortunately the child died. In her next confinement the woman bore a child similarly afflicted. This child also died. Mrs. B., Mrs. A.'s friend, who knew nothing of Mrs. A.'s trouble, gave birth to a child having the same deformity. Mrs. A. heard of this, and, being pregnant again, her suspense is better imagined than described. To everybody's satisfaction, and especially to her own, Mrs. A. at full term was delivered of a fine, healthy child, and both did well.

Strange as are the foregoing cases, those of paternal impressions eclipse them.

Several are on record, but none is of sufficient authenticity to warrant much discussion on the subject.

Hoare recites a curious story of a man who vowed if his next child was a girl he would never speak to her. The child proved to be a boy, and during the whole of his father's life nothing could induce the son to speak to his father, nor, in fact, to any other male person; though after his father's death he showed no distinction, and talked fluently to either sex.

The next example is that of *telegony*, the *alleged influence* of a woman's previous husband on her children produced by a subsequent one.

As a means of making the definition of *telegony* plainer by practical example, Brunton Blakie prefaced his remarks by citing the classic example which first drew the attention of the modern scientific world to this phenomenon.

In the year 1815 Lord Marton bred a male quagga to a young chestnut mare of seven-eighths Arabian blood, which had never before been bred from. The result was a female hybrid which resembled both parents. He sold the mare to Sir Gore Onsley, who two years after she bore the hybrid bred her to a black Arabian horse.

During the two following years she had two foals which Lord Marton described as follows:

"They have the character of the Arabian breed as decidedly as can be expected when fifteen-sixteenths of the blood is Arabian, but both in their color and in the hair of their manes they bear a striking resemblance to the quagga."

The President of the Royal Society saw the foals, and verified Lord Marton's statement.

Sir Henry Scott says dog-breeders know this theory of *telegony* well. Breeders of Bedlington terriers wish to breed dogs with as powerful jaws as possible, and in order to accomplish this, they breed the Bedlington terrier bitch first to a bull-terrier dog and get a mongrel litter, which they destroy. They then breed the bitch to a Bedlington dog, and get a litter of puppies which are practically pure, but have much stronger jaws than they would otherwise have had, and also show much of the gameness of the bull terrier—thus proving that physiological as well as anatomical characters may be transmitted in this way.

After citing the foregoing examples, Blakie directs his attention to man, and makes the following interesting remarks: "We might expect from the foregoing account of *telegony* among animals that whenever a black woman had a child to a white man, and then married a black man, her subsequent children would not be entirely black."

Dr. Robert Balfour, of Surinam, in 1851, wrote to Harvey that he was continually noticing among the colored population of Surinam that if a negress had a child by a white and afterwards fruitful intercourse with a negro the later offspring had generally a lighter color than the parents.

Taruffi, the celebrated Italian, in speaking of the subject says: "Our knowledge of this strange fact is by no means recent, for in 1608 Fienus said that 'most of the children born in adultery have a greater resemblance to the legal than to the real father.'"

Harvey said: "It has long been known that the children by a second husband resemble the first husband in features, mind, and disposition. It would seem as though the Israelites had some knowledge of telegony, for in Deuteronomy we find when a man died leaving no issue, his wife was commanded to marry her husband's brother, in order that he might "raise up seed to his brother."

#### "ANTE-NATAL PATHOLOGY"

We have next to deal with the diseases and accidents that affect the pregnant uterus.

The first disease to attract attention was smallpox. Devilliers, Blot, and Depaul all speak of congenital smallpox, in which the child was born dead and showing evidences of typical smallpox pustulation, with a history of the mother having been infected during pregnancy.

Maurice, on the other hand, reports of having delivered a mother of a healthy child at full term, with a history of having recovered from a severe attack of smallpox in her fifth month.

In 1878 Hubbard attended a woman whose child showed the rash of chickenpox twenty-four hours after birth and passed through the regular course of ten days' duration. The mother had no signs of the disease, but the children all about her were infected.

Nutter has observed the case of transmission of pneumonia from the mother to the fœtus, and has seen two cases in which the blood from the uterine vessels of the patient contained pneumococcus.

#### THE RESULTS TO THE FŒTUS OF INJURIES TO THE PREGNANT MOTHER

In some instances the marvellous escape from any serious consequences of one or both is almost incredible, while in others the slightest injury is fatal.

Guillemont cites a case of a woman who was killed by a stroke of lightning, but whose fœtus was saved.

Gibbs speaks of a woman about eight months pregnant who fell across a chair, lacerating her genitals and causing an escape of liquor amnii. There was regeneration of this fluid, and delivery beyond term. The labor was tedious. The mother and child did well.

There are some marvellous cases of recovery and non-interference with pregnancy after injuries.

Corey speaks of a woman of thirty-five, weighing 135 pounds, who was horned by a cow through the abdomen. She was lifted into the air, carried, and tossed on the ground by the infuriated animal. There was a

wound consisting of a ragged rent from the os pubis extending upward and to the left, through which protruded the omentum, the transverse and descending colon, and most of the small intestines. These organs remained outside the body three and a half hours, during which time the patient remained calm and conscious. Finally chloroform was given, and in twenty minutes the intestines were all replaced in the abdomen and the wound sewed up. The woman was placed in bed on her right side. The wound healed and she was up and out in twenty days. Incredible to relate, she was delivered in just 202 days of a well-developed, full term child. Both did well.

There seems in some cases to be no limit to what the pregnant uterus can successfully endure.

Tiffany quotes the account of a woman of twenty-seven, eight months pregnant, who was almost buried under a clay wall. She received terrible wounds about the head, thirty-two sutures being used. Subsequently she was confined, and easily bore a perfectly normal female child. Both did well.

However, all the cases do not have as happy an issue as the foregoing.

Gurlt speaks of a woman seven months pregnant who fell from a step ladder, subsequently losing some blood and some water from the vagina. She also had persistent abdominal pains. At her confinement, which was normal, a strong boy was born, wanting one arm below the middle, at which point the bone protruded. The wound healed, and the separated arm came away after birth.

Another case is related of a peasant woman of thirty-five, the mother of four children, and pregnant with the fifth, who was struck in the abdomen. She was thrown down and felt a tearing pain, which caused her to faint. It was found that the uterus was ruptured and the child killed.

And much simpler things than these, such as horseback riding, hurrying to catch a train, running up and down stairs, a railroad trip, or driving over rough roads—any one of these at certain stages is sufficient to produce either abortion or miscarriage, as the case may be.

In closing this subject I'll quote from the New Testament:

"Who did sin, this man or his parents, that he was born blind? Neither hath this man sinned nor his parents, but that the works of God should be made manifest in him."